

**XXIX.—Diagnoses of new Species of Pleurotomidæ in the British Museum.** By EDGAR A. SMITH.

[Continued from p. 218.]

*Pleurotoma (Defrancia\*) rubro-apicata.*

Testa ovata, alba, ad apicem rubra; anfract. 8, primi 2 minute granulosi, sequentes duo oblique exiliter reticulati, cæteri convexi, superne ad suturam canaliculati, costis tenuibus 12 (in anfr. ultimo haud ad basim attingentibus) et liris spiralibus 5–6 (in anfr. ultimo 16–19) supra costas subnodosis clathrati; apertura parva, longit. totius ad  $\frac{5}{11}$  æquans; labrum incrassatum, intus denticulis 8–9 munitum, juxta suturam subprofunde sed anguste fissum; columella tortuosa, basi obliqua; canalis angustus, brevis. Long.  $5\frac{1}{2}$  mill., diam.  $2\frac{1}{2}$ .

*Hab.* Japan?

The four apical whorls are red, the rest of the shell is white. The upper part of each whorl is distinctly channelled.

*Pleurotoma (Defrancia) capensis.*

Testa abbreviato-fusiformis, pallide fusca, infra medium anfracti ultimi fusca, interdumque hic illic fusco ac prope suturas albo maculata; anfract. 9, primi 2–3 convexi, minute reticulati, cæteri superne angulati et tabulati, costis longitudinalibus gracilibus (in anfr. ultimo ad 12) et spiralibus fere æque validis (in anfr. superioribus 3, in ultimo circiter 6 præcipuis, atque aliis circa caudam subgranosis) fortiter cancellati, intersectionibus acute nodulosis; apertura ad  $\frac{3}{7}$  longitudinis totius æquans, basi contracta; labrum incrassatum, intus denticulatum et ad suturam incisum, inferne cum columella rectiuscula canalem brevem leviter recurvum formans.

Long.  $13\frac{1}{2}$  mill., diam. 5.

*Hab.* Port Elizabeth, South Africa.

This species is very closely related to the European *D. reticulata*, Bronn. It differs chiefly in the whorls being less rounded, more constricted at their base, and slopingly tabulated above; and the cancellation is rather coarser. The colouration is similar.

*Pleurotoma (Defrancia?) asperulata.*

Testa fusiformis, lutescens; anfract.  $9\frac{1}{2}$ , primi  $2\frac{1}{2}$  læves, vitrei, politi, cæteri perconvexi, sutura canaliculata sejuncti, costis tenuibus 18 et liris spiralibus 8 supra costas leviter echinatis, concinne clathrati;

\* This section is employed, in the sense as restricted by Dr. Gwyn Jeffreys, for such species as have a cancellated sculpture, minutely reticulated apical whorls, and the labral sinus *at* and *not below* the suture. Perhaps it would be advisable to employ the name *Clathurella*, proposed by Carpenter, as *Defrancia* was previously appropriated for another branch of the animal kingdom.

anfract. ultimus superne rotundatus, basi subelongate caudatus, liris spiralibus 18–20 (quarum inferiores 9–10 circa caudam simplices sunt) ornatus; apertura parva, longit. totius  $\frac{1}{3}$  paulo superans; labrum tenue, ad suturam profunde angusteque incisum; columella tortuosa; canalis angustus obliquus, paululum recurvus.

Long. 10 mill., diam. 3.

*Hab.* Japan (*A. Adams*) ; Persian Gulf (*Col. Pelly*).

This species partakes of the general aspect of *P. reticulosa*, but is distinguishable from it by its longer spire, narrower form, closer reticulation, and smooth apical whorls.

*Pleurotoma (Defrancia?) reticulosa.*

Testa fusiformis, luteo-alba; anfract. 10, primi 4 convexi, oblique tenuiter crenulati, et obsolete transversim striati, cæteri superne juxta suturam anguste leviterque canaliculati, infra canalem perconvexi, et concinne reticulati, reticulo ex costis tenuibus circiter 18 (in anfr. ultimo ante caudam obsoletis) et liris spiralibus (in anfr. penultimo 6, supernis duabus quam cæteræ minoribus) supra costas subechinatis constructo; anfr. ultimus superne rotundatus, inferne in caudam subelongatam productus, liris spiralibus ad 18 (inferioribus 10–12 simplicibus) cinctus; apertura cum canali longit. totius  $\frac{2}{3}$  adæquans; labrum juxta suturam anguste profundeque incisum; columella tortuosa, haud callosa; canalis angustus, subelongatus.

Long.  $11\frac{1}{2}$  mill., diam. 4.

*Hab.* Japan (*A. Adams*) ; Persian Gulf (*Col. Pelly*).

At the base of the last whorl, around the cauda, a faint brown band is traceable. The smooth furrow at the top of the whorls, their reticulated surface, and the rather produced canal are characters at once indicating this species.

*Pleurotoma (Defrancia?) trifilosa.*

Testa ovato-turrita, nitens, albida, lineis tribus fusco-olivaceis circa medium anfractuum, et quatuor circa basim anfr. ultimi, ornata; anfractus 7, primus castaneus, sequentes duo laeves convexi, cæteri convexiusculi, costis obliquis tenuibus circiter 13 (in anfr. ultimo paululum infra medium evanidis) instructi, liris spiralibus ad 7 supra costas subnodosis cincti; anfr. ultimus liris 19–20 ornatus; apertura longitudinis totius ad  $\frac{4}{5}$  æquans; labrum leviter incrassatum et superne sinuatum, intus denticulatum? (vix adultum); canalis brevis, obliquus, aliquanto recurvus.

Long.  $4\frac{1}{2}$  mill., diam.  $1\frac{2}{3}$ .

*Hab.* —?

This very pretty shell is remarkable for its numerous ribs, which are about equal in width to the interstices between

them ; and the spiral lirations are arranged close together and are slightly granulous on crossing the ribs. Three of them around the middle of the whorls and four encircling the lower part of the body-whorl, and separated from the above by three white liræ, are of an olive-brown colour. Probably, in the adult shell, the labrum may be furnished with a few denticles within.

*Pleurotomia (Defrancia?) piperata.*

Testa acuminato-ovata, sordide albida, punctis rufo-nigris ornata ; anfractus 9, primi tres convexit, primus luteus, cæteri convexiusculi, costis circiter 15 et liris spiralibus 4 supra costas granosis concinne cancellati ; anfract. ultimus liris ad 14 succinetus ; apertura parva, longitudinalis totius  $\frac{2}{3}$  adæquans ; labrum incrassatum, intus denticulis 3-4 ornatum, superne leviter sinuatum ; columella callo tenui induita ; canalis brevis, obliquus, leviter recurvus. Long. 5 mill., diam.  $1\frac{2}{3}$ .

*Hab.* Straits of Korea (*A. Adams*).

The reddish-brown dots are on the granules and are disposed somewhat regularly. They are frequently three in number on each alternate rib, near the suture ; but around the middle of the body-whorl they do not occur. The West-Indian species *monilifera*, Sowerby, is the nearest ally of this species ; it is, however, a little more slender, consists of two more whorls, of which the apical ones form a more acuminate apex, and the cancellation is finer.

*Pleurotomia (Defrancia?) alternans.*

Testa ovata, albida vel pallide cornea, costis alterne fuscis et albidis ornata, anfract. 7?, apice abrupto reliqui 5 leviter convexi, costis longitudinalibus 12 (in anfr. ultimo ad basim continuis) et liris spiralibus supra costas leviter nodosis (in anfr. penult. 4, in ultimus 10) valde cancellati ; anfr. ultimus circa medium lira quarta tota albida cinctus, et infra illam costæ omnes fuscae sunt ; apertura aliquanto angusta, longitudinalis totius ad  $\frac{3}{4}$  æquans ; labrum incrassatum, intus circiter 6-dentatum, superne leviter sinuatum ; canalis angustus, brevis, basi truncatus.

Long. 6 mill., diam.  $2\frac{1}{2}$ .

*Hab.* —— ?

The colouring of this species is very remarkable. In the upper whorls the ribs are alternately brown and white, and the lowest liration, which is in conjunction with the suture and encircles the middle of the body-whorl, is wholly white. The fifth and sixth lirations on the last, reckoning from the suture, are rather far apart, and the longitudinal ribs between them are uniformly brown.

*Pleurotoma (Defrancia ?) albicaudata.*

Testa ovata, superne acuminata, fusca, ad apicem et basi anfracti ultimi alba; anfractus 7, superne 2-3 albi, minutissime reticulati, cæteri convexiusculi, sutura subprofunda discreti, costis circiter 12, et liris spiralibus 3-4, supra costas subnodulosis fenestrati; anfract. ultimus liris spiralibus 12, quarum inferiores 6 albæ granosæque sunt, ornatus; apertura longit. totius quam  $\frac{1}{2}$  paulo minor; labrum extra valde incrassatum, intus denticulis 4-5 munitum, prope suturam subprofunde sinuatum; canalis brevis.

Long. 4 mill., diam.  $1\frac{1}{2}$ .

*Hab.* Persian Gulf (*Col. Pelly*).

The contrast of colour, the chief portion of the shell being a rich brown, with the apex and lower part of the body-whorl white, is very remarkable. This peculiarity, together with the strongly cancellated surface, at once distinguish this pretty species.

*Pleurotoma (Defrancia ?) moretonica.*

Testa ovato-fusiformis, brunnea; anfr. 9, primi 2 laeves, politi, tertius minute reticulatus, cæteri superne decliviter tabulati, inferne planiusculi, costis tenuibus 22-24 (in anfr. ultimo ad basim haud continuis) et liris spiralibus præcipuis 3 et aliis minoribus inter illas (in anfr. ultimo circiter 25) tenuiter reticulati; apertura angusta, longit. totius  $\frac{1}{2}$  æquans; labrum extra incrassatum, margine crenulatum, superne modice sinuatum; canalis brevis, angustus.

Long. 11 mill., diam.  $3\frac{1}{2}$ .

*Hab.* Moreton Bay, Queensland (*Strange*).

The uniform brown colour and the fine reticulation are the chief characteristics. The spiral lirations are slightly nodulous on crossing the ribs.

*Pleurotoma (Defrancia ?) commoda.*

Testa elongato-ovata, alba; anfract. 8, primus laevis, secundus minute oblique reticulatus, cæteri convexiusculi, costis tenuibus ad 14 (in anfr. ultimo basim vix attingentibus) et liris spiralibus gracilibus (in anfr. penult. 6-7, in ultimo circiter 16) concinne cancellati; apertura longit. totius  $\frac{1}{2}$  paulo minor; columella callo tenui induita; labrum extra incrassatum, intus liris tenuibus 9-10 ornatum, versus suturam rotunde sinuatum; canalis angustatus, brevis.

Long. 8 mill., diam.  $2\frac{1}{2}$ .

*Hab.* California.

The spiral lirations are rather finer than the longitudinal ribs, and are slightly thickened on crossing them. In some

specimens there is a slight tooth-like projection near the base of the columella.

In general form this species is rather like *P. producta*, Pease, from the Sandwich Islands; but the sculpture is different. In the former the cancellation is much more open, and the liræ are scarcely nodulous at the points of intersection with the longitudinal ribs, whereas in the latter the ribs are very close together.

*Pleurotoma (Defrancia?) subgranosa.*

Testa ovata, alba, infra suturas zona flavo-fusca, et infra medium anfr. ultimi altera, ornata; anfractus  $6\frac{1}{2}$ , primi  $2\frac{1}{2}$  convexi, oblique tenuiter costati, cæteri convexiusculi, sutura canaliculata sejuncti, costis subcrassis 12 (in anfr. ultimo basi continuis) et liris spiralibus (in anfr. tertio quartoque 3, in penultimo 4, in ultimo 12) supra costas subgranosis cancellati; apertura angusta, longit. totius  $\frac{5}{11}$  adæquans; columella medio incrassata; labrum incrassatum, intus denticulis 5 armatum; sinus subamentiformis, paululum infra suturam situs; canalis angustus, brevis, basi truncatus.

Long.  $5\frac{1}{2}$  mill., diam.  $2\frac{1}{3}$ .

*Hab.* —? A variety from Singapore. Coll. Cuming.

The brownish band below the suture includes the two upper lirations; that around the body-whorl colours the sixth and seventh (reckoning from the suture). The single specimen from Singapore is undoubtedly this species, but has a slightly distorted look and is of larger dimensions, being 7 millim. long and 3 broad.

*Pleurotoma (Defrancia?) associata.*

Testa fusiformi-ovata, turrita, rubro-fusca, circa medium anfr. ultimi zona angusta flava cincta; anfract.  $6\frac{1}{2}$ , primus  $1\frac{1}{2}$  lœvis, politus, cæteri convexiusculi, supra oblique tabulati, costis 12 (in anfr. ultimo basim vix attingentibus) et liris spiralibus 4 supra costas nodulosis instructi; anfr. ultimus liris circiter 15, inferioribus 6, vix nodulosis, succinctus; apertura longit. totius ad  $\frac{3}{7}$  æquans; labrum incrassatum, intus denticulis 5–6 munitum; columella juxta suturam callosa; canalis angustus, brevis, truncatus.

Long. 7 mill., diam.  $2\frac{1}{2}$ .

*Hab.* —?

*P. zonulata*, Angas, appears to be the nearest ally of this species.

*Pleurotoma (Daphnella) Souverbieei.*

Testa elongato-ovata, parum nitida, alba, lineis spiralibus paucis interruptis lacteis ornata; anfract. 9?, apicalibus 3 fractis supremi reliqui 3–4 longitudinaliter oblique costati, spiraliterque

striati, cæteri læves, convexiusculi, tenuiter spiraliter incrementique lineis striati; anfr. ultimus magnus, cauda oblique sulcata terminatus; apertura latiuscula, longit. totius  $\frac{9}{10}$  adæquans; labrum leviter incrassatum, ad marginem dentatum, juxta suturam sinuatum; canalis brevis, vix recurvus, paululum obliquus.

Long. 19 mill., diam. 7.

*Hab.* Swan River, West Australia (*G. B. Sowerby*).

Although this species has considerable likeness to *P. rissoides*, Reeve, it is very different in several respects. The proportion of the last whorl to the entire shell is much larger in the present species, occupying nearly two thirds of the entire length, whereas in *P. rissoides* it only extends to a little more than half of it. The spiral striation, the less convex whorls, and the absence of coloration at the apex are the characters by which this species may be known.

*Pleurotoma (Daphnella) tenuiclathrata.*

Testa ovata, tenuis, semitranslucida, albida, dilutissime luteo tineta, versus basim anfr. superiorum et circa medium anfr. ultimi zona irregulari lactea opaca cineta; anfract. 9 ?, apicalibus 3 abruptis superiores reliqui 3-4 costis longitudinalibus ad 8 et liris fortibus transversis 2-3 cancellati, cæteri convexi, liris longitudinalibus tenuissimis spiralibusque paululum crassioribus et pulcherrime granulatis (paucis hic illic quam cæteræ majoribus) exiliter cancellati; apertura longit. totius  $\frac{1}{2}$  adæquans; labrum tenue, ad suturam aliquanto profunde sinuatum; columella sinuosa; canalis brevis.

Long. 14 mill., diam. 5.

*Hab.* — ?

The spiral lirations are very numerous and beautifully minutely beaded.

*Pleurotoma (Daphnella) supercostata.*

Testa ovato-fusiformis, tenuiuscula, luteo-albida, haud nitens; anfract.  $6\frac{1}{2}$ , convexi, quorum ultimi 4 prope suturam leviter concavo-depressi, primus  $1\frac{1}{2}$  lævis, sequentes 3 plicis longitudinalibus (circiter 10) et striis numerosis transversis cincti, cæteri lineis spiralibus confertissimis et longitudinalibus innumeris minute reticulati; anfr. ultimus magnus, ventricosus, basim versus contractus, cum columella caudam brevem effingens; apertura paululum spira longior; columella fere recta; canalis brevis, paululum recurvus; labrum ad suturam distincte sinuatum, extra incrassatum.

Long. 13 mill., diam.  $5\frac{1}{2}$ . Apertura long. 7, diam.  $2\frac{1}{2}$ .

*Hab.* Japan (*A. Adams*).

The convex whorls slightly excavated near the suture, the upper ones only being longitudinally ribbed, and the minute

striation, forming a very fine reticulation over the entire surface, are the chief characteristics of this very distinct species. It was named *D. striolata* in manuscript by A. Adams.

*Pleurotoma (Daphnella) Macandrewi.*

Testa ovato-fusiformis, sordide albida, zonis duabus pallide luteis ad suturas, et in anfr. ultimo tertia infra medium ornata; anfr. 11, convexi, superne leviter concave planulati, costis tenuibus obliquis (in anfr. antepenult. 10, in penult. 12, in ultimo circiter 17 basi attenuatis) instructi, liris spiralibus numerosis subgranosis cincti; anfract. ultimus circa caudam lutescentem liris subvalidis circiter 8 ornatus; apertura longitudinis totius  $\frac{4}{9}$  adaequans; columella basi tortuosa; canalis angustus, pro *Daphnella* subelongatus.

Long. 18 mill., diam. 6.

*Hab.* Persian Gulf (*Pelly*).

The sinus is probably like that of other *Daphnellae*; but as the labrum is broken away, I cannot describe it. The granulous character of the spiral lirations is produced by their being crossed by fine longitudinal striae. I feel a sorrowful pleasure in associating with this species the name of the late and deeply-lamented Robert McAndrew, one of the most liberal of the many donors of shells to the national collection.

*Pleurotoma (Daphnella) tenella.*

Testa ovata, tenuis, alba, ad apicem pallide violacea, superne ad suturam pallide brunneo fasciata, in anfr. ultimo fasciis tribus (suprema ad suturam, mediana latissima, infima angusta circa caudam) ornata; anfract. 8 ?, apice abrupto reliqui 4 superne decliviter planulati, medio leviter angulati, infra angulum convexiusculi, costis tenuibus flexuosis obliquis (in anfr. ultimo ad 18 paululum ante basim evanidis) instructi, undique tenuiter spiraliter lirati; apertura elongato-ovata, longit. totius  $\frac{1}{2}$  adaequans; columella callo tenui superne incrassato labroque juncto induta, inferne paululum infra medium tuberculo parvo munita; labrum extra incrassatum, intus dentatum; sinus semicircularis; canalis angustus brevis.

Long. 11 mill., diam. 4.

*Hab.* —?

The two lower bands are only separated by a very narrow white one. The spiral lirations are fine, but rather distant, being about eight in number in the penultimate whorl and about forty-five in the last. Possibly the tubercle on the columella is not constant.

*Pleurotoma (Daphnella) Gealei.*

Testa ovato-turrita, alba, costis fusco-luteis (hic illie unica alba)

ornata, circa anfr. ultimi medium linea alba cineta, pone labrum fusco maculata; anfract. 10? apice fracto primus reliquus minute spiraliter striatus, cæteri decliviter tabulati, inferne convexiusculi, costis subrectis 11 (in anfr. ultimo basi continuis) et liris spiralibus 8 (supremis 4 tenuibus confertis, supra tabulas sitis) supra costas leviter incrassatis cancellati; anfr. ultimus liris ad 17, infimis 5 circa caudam valde granosis, cinetus; apertura longit. totius  $\frac{2}{3}$  paulo excedens; columella superne leviter callosa, planulata; labrum extra costa ultima incrassatum, intus 10-lirato-dentatum, prope suturam sinu parvo emarginatum; canalis angustatus, truncatus, brevis.

Long. 14 mill., diam.  $5\frac{1}{2}$ .

*Hab.* ——?

The granules on the cauda are large and are alternately white and pale brown.

*Pleurotoma (Daphnella) Butleri.*

Testa oblonga, leviter turrita, alba; anfractus 8? (apice abrupto), reliqui 5 fere plani, costis 13–14 subrectis, tenuibus (in anfr. ultimo basi productis) instructi, et liris spiralibus circiter 8 filiformibus inter et supra costas continuis (in anfr. ult. ad 24, quarum inferiores 5–6, supra costas nodulosæ sunt) cincti; apertura angustissima, quam longitudinis totius  $\frac{1}{2}$  paulo minor; labrum paulo pone marginem costa ultima incrassatum, superne sinu subamentiformi ornatum, intus lœve; columella rectiuscula, leviter callosa, lœvis; canalis angustus, subbrevis.

Long.  $9\frac{1}{2}$  mill., diam. 3.

*Hab.* Island of Capul, Philippines. Coll. Cuming.

This very pretty shell is remarkable for the numerous slender ribs, which incline a little to the left at the upper suture, and the delicate thread-like lirations, of which the two or three uppermost are situated nearer together than the rest, and about half a dozen which encircle the base of the body-whorl become developed on crossing the fine ribs into little nodules. The thin callus on the columella is united above to the labrum, and with it forms a loop-like sinus.

*Pleurotoma (Glyphostoma) soror.*

Testa breviter fusiformis, subturrita, albida, infra medium anfr. ultimi rufo-fusea; anfract. 10, primus convexus, vitreus, secundus lœvis medio carinatus, cæteri superne concaviusculi, inferne leviter convexi, costis 12 (in anfr. ultimo vix ad basim attingentibus) instructi, liris spiralibus 3 (in anfr. ultimo 15) cincti; apertura longit. totius  $1\frac{1}{6}$  adæquans; labrum extra incrassatum, margine dentatum, intus denticulis 6 munitum; sinus mediocris, suba-

mentiformis ; columella transversim lirata ; canalis profundus, angustus, leviter recurvus.

Long. 13 mill., diam.  $4\frac{1}{3}$ .

*Hab.* Persian Gulf (*Col. Pelly*).

This shell has considerable affinity to *P. spurca*, Hinds, but differs in the upper part of the whorls lacking spiral stria-tions, the canal being shorter, and the sinus not so produced outwardly to the right.

*Pleurotoma (Glyphostoma) biseriata.*

Testa breviter fusiformis, turrita, albida ; anfr. 8, primi 2 laeves, cæteri superne decliviter planulati, medio angulati, inferne plani, longitudinaliter costati (in anfr. ultimo costis 14 medio obsoletis), liris spiralibus 5 cincti, superioribus duabus tenuibus supra angulum sitis, sequentibus duabus magnis supra costas nodulosis, infima juxta suturam tenui ; anfr. ultimus infra liras nodulosas liris aliis ad 10 ornatus ; apertura parva, longit. totius ad  $\frac{4}{13}$  æquans ; columella callo tenui ad suturam incrassato induta, medio liris 3-4 (superne maxima) ornata ; labrum intus extraque incrassatum, intus bidentatum ; sinus magnus ; canalis brevis, recurvus.

Long. 8 mill., diam.  $2\frac{1}{2}$ .

*Hab.* —?

The lip of this shell is very peculiar, perhaps abnormal : it is thickened on the outside by the last longitudinal rib ; and within there is a second rib, leaving a groove between it and the outer one ; in fact the labrum may be said to have two margins. The two nodulous lirations are considerably larger than the others.

*Pleurotoma (Glyphostoma) obtusicostata.*

Testa anguste ovata, crassa, lutescens, infra medium anfr. ultimi castanea ; anfract. 9, convexiusculi, superne prope suturam levissime constricti, costis 12 crassis, rotundatis, paululum obliquis instructi, liris confertis tenuibus supra ac infra costas continuis ubique ornati, paucis circa caudam quam cæteræ paulo majoribus ; apertura parva, longit. totius  $\frac{2}{3}$  æquans ; labrum extra costa incrassatum, basi castaneo maculatum, intus liris tenuibus curtis circiter 10 (infima crassa) armatum, prope suturam sinu subamentiformi emarginatum ; columella castanea, transversim obsolete tenuiter lirata ; canalis angustus, brevissimus, leviter recurvus.

Long. 8 mill., diam.  $2\frac{2}{3}$ .

*Hab.* —?, Japan probably. Variety from the Persian Gulf (*Pelly*).

In the specimen from the Persian Gulf the labrum has a second chestnut spot above, and the spiral lines are a little coarser than in the type.

*Pleurotoma (Glyphostoma ?) exquisita.*

*Pleurotoma vittata*, Reeve (non Hinds), Conch. Icon. sp. 53, pl. vii. fig. 53.

Hab. Island of Luzon, Philippine Islands.

*Pleurotoma (Glyphostoma ?) rubrocincta.*

Testa breviter fusiformis, turrita, rubescens-alba, ad suturas rubro-tincta et circa medium anfract. ultimi zona angusta rubra cineta; anfract. 7, primus laevis, secundus tenuiter crebre costatus, cæteri superne decliviter tabulati, deinde angulati, infra angulum plani, ad suturam constricti, costis subconfertis (in anfr. ultimo 12-13 fere ad basim continuis) instructi, liris spiralibus ad 6 supra costas leviter incrassatis (in anfr. ultimo circiter 18, quarum duæ supra angulum cæteris minores sunt) cancellati; apertura angusta, longit. totius  $\frac{1}{2}$  paulo superans; columella obsolete dentata; labrum extra incrassatum, intus ad 8-dentatum; sinus vix apparet; canalis perangustus, brevis.

Long. 6 $\frac{2}{3}$  mill., diam. 2 $\frac{1}{2}$ .

Hab. Ovalau, Fiji Islands, 12 fms.

The nearest ally to this species is *P. fasciata*, Gray.

*Pleurotoma (Glyphostoma ?) bathyraphe.*

Testa ovato-fusiformis, roseo-alba; anfract. 7, primus laevis, secundus tenuiter arcuate costatus, cæteri leviter convexi, costis longitudinalibus 14 (in anfr. ultimo basi continuis) et liris validis 3 (in anfr. ultimo 15) supra costas nodosis cancellati, sutura profunda canaliculata sejuncti; apertura angusta, longit. totius  $\frac{1}{2}$  paulo superans; labrum extra incrassatum, intus dentibus 7 (superioribus maximis) munitum, superne vix sinuatum; columella callosa, liris transversis circiter 6 ornata; canalis angustus, brevis.

Long. 6 mill., diam. 2 $\frac{1}{3}$ .

Hab. San Nicolas, Zebu, Philippines, 10 fathoms (*Cuming*).

The cancellation of this species is very pretty, since the spiral lirations are thickened on crossing the ribs, and thus form transversely elongated tubercles. The suture is well marked and deep.

*Pleurotoma (— ?) sexcostata.*

Testa angusta, fusiformis, fusca; anfractus 9, primi duo laeves, convexi, sequens 1-1 $\frac{1}{2}$  crebre tenuiter costatus, cæteri fere plani, costis 6 leviter obliquis, prominentibus (supra spiram continuis, et in anfr. ultimo vix ad basim continuis) instructi, liris spiralibus 3 supra costas valde prominentibus, in interstitiis fere obsoletis, cincti; anfr. ultimus liris 13 ornatus, quarum tres infra

medium cæteris minores et sex circa caudam interstitiis hand interruptæ; apertura parva, longitudinis totius  $\frac{2}{5}$  adæquans; columella callo tenui sed satis distincto superneque labro juncto induita; labrum ad marginem tenue, extra costa ultima incrassatum, paululum infra suturam sinu subsemicirculari ornatum, intus liris parvis 6–7 armatum; canalis angustus, aliquanto elongatus.

Long. 6 mill., diam. fere 2.

*Hab.* Singapore, 7 fms. Coll. Cuming.

This uniformly rich-brown species is remarkable for the six ribs which are continuous up the spire, and the three lirations which traverse each whorl. They are very prominent on the ribs, standing out like little transverse nodules, and are almost obsolete in the interspaces.

*Pleurotoma (Taranis ?) turritispira.*

Testa fusiformi-ovata, turrita, tenuis, sordide albida vel pallide straminea; anfractus 6. primi 2 pallide rubescentes, minute spiraliter granoso-lirati, convexi, cæteri superne decliviter tabulati et angulati, infra angulum fere plani, liris spiralibus præcipuis 4 (suprema ad angulum, cæteris infra eam sitis) et liris tenuioribus paucis supra angulum cincti, ubique incrementi lineis elevatis inter liras ornati; anfr. ultimus magnus, inter et infra liras 4 præcipuas liris aliis numerosis minoribus succinctus; apertura longitudinis totius ad  $\frac{1}{2}$  æquans; labrum tenue, haud sinuatum; columella leviter contorta, callo tenuissimo amicta; canalis brevis, subangustus, leviter recurvus, ad sinistram flexus.

Long. 6 mill., diam. 2.

*Hab.* Japan.

Under a simple lens the two apical whorls appear almost smooth; but by the aid of a more powerful microscope they are seen to be covered with numerous close spiral series of minute granules.

XXX.—*Carcinological Investigation on the Genera Pemphix, Glypheia, and Aræosternus.* By T. C. WINKLER.

[Concluded from p. 149.]

VI. *The Genus Pemphix compared with the Genus Glypheia.*

In the preceding pages we have glanced at the organization of *Pemphix Sueuri*, Meyer, we have given a short historical sketch of the genus *Glypheia*, followed by a description of the